DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES Office of Structural Materials Quality Assurance and Source Inspection

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Contract #: 04-0120F4

Cty: SF/ALA Rte: 80 PM: 13.2/13.9

File #: 99.28

WELDING INSPECTION REPORT

Resident Engineer: Siegenthaler, Peter **Report No:** WIR-022843 Address: 333 Burma Road **Date Inspected:** 19-Apr-2011

City: Oakland, CA 94607

OSM Arrival Time: 700 **Project Name:** SAS Superstructure **OSM Departure Time:** 1900 **Prime Contractor:** American Bridge/Fluor Enterprises, a JV

Contractor: Zhenhua Port Machinery Company, Ltd (ZPMC) Chanxing Island **Location:** Shanghai, China

CWI Name: Mr. LIU HUA JIE **CWI Present:** Yes No **Inspected CWI report:** Yes N/A **Rod Oven in Use:** Yes No No N/A N/A **Electrode to specification:** Yes No Weld Procedures Followed: Yes No N/A N/A **Qualified Welders:** Yes No **Verified Joint Fit-up:** Yes No N/A N/A Yes N/A **Approved Drawings:** Yes No **Approved WPS:** No Yes No N/A **Delayed / Cancelled:**

Bridge No: 34-0006 **Component: OBG Segment**

Summary of Items Observed:

On this date CALTRANS OSM Quality Assurance (QA) Inspector Santhosh Ramakrishna Pillai was present during the times noted above for observations relative to fabrication work of the Self Anchored Suspension (SAS) Superstructure being performed by Zhenhua Port Machinery Company (ZPMC) at Changxing Island in Shanghai, China.

This QA inspector randomly observed the following work:

1. INPROCESS:

Orthotropic Box Girder (OBG) at Trial Assembly Area:

ZPMC welding personnel performing Shielded Metal Arc Welding of Complete Joint Penetration welds joining the bottom plate to side plate hold back weld joint located on 12CW+13AW at counter weight side. The weld is designated as SEG3013A-008(13AW). The welder is identified as 067942. ZPMC QC Mr. HU MEI GANG was onsite monitoring the welding variables. The inprocess Shielded Metal Arc Welding appears to be progressing in compliance with WPS-B-P-2214-B-U2-FCM-1.

ZPMC welding personnel performing Shielded Metal Arc Welding of Complete Joint Penetration welds joining the bottom plate to side plate hold back weld joint located on 12CW+13AW at cross beam side. The weld is designated as SEG3013A-015(13AW). The welder is identified as 069683. ZPMC QC Mr. HU MEI GANG was onsite monitoring the welding variables. The inprocess Shielded Metal Arc Welding appears to be progressing in

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compliance with WPS-B-P-2214-B-U2-FCM-1.

2. NDT:

Ultrasonic Testing (UT):

UT carried out as per the ZPMC submitted Notification No 08872.

This QA Inspector performed Ultrasonic Testing (UT) on approximately 10 % of CJP welds that has been previously tested and accepted by ZPMC ultrasonic technicians in accordance with AWS D1.5-2002, section 6, table 6.3. The members are identified as butt joint between drip plate weld joint located on 12BE at cross beam side. This QA inspector generated a UT (TL-6027) report for this date. Weld identification numbers were OBE12C-010.

Note: For Weld number OBE12C-013, UT not has done due to Visual Inspection rejection. ZPMC QA has accepted to repair above said weld number & notified again for UT Inspection.

Ultrasonic Testing (UT) (A, B, C and D-Scan):

UT carried out as per the ABF submitted UT Report No UT-13E-030R1.

This QA Inspector performed Ultrasonic testing (UT) 10 % of the area that has been previously tested and accepted by ABF Quality control personnel. This QA inspector generated a UT (TL-6027) report on this date. The members are identified as corner joint between edge plate to deck plate weld joint located on 13AE at E5 work point. According to rejection criteria of "D" Scan procedure that Caltrans QA did not find any Rejected indication at scanning area. The Weld Designation is as follows: SEG3007AB-094.

UT carried out as per the ABF submitted UT Report No UT-13E-030.

This QA Inspector performed Ultrasonic testing (UT) 10 % of the area that has been previously tested and accepted by ABF Quality control personnel. This QA inspector generated a UT (TL-6027) report on this date. The members are identified as corner joint between edge plate to side plate hold back weld joint located on 13BW+13CW at cross beam side. According to rejection criteria of "D" Scan procedure that Caltrans QA did not find any Rejected indication at scanning area. The Weld Designation is as follows: CA3015A-006 & CA3016A-101.

Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.

Summary of Conversations:

No relevant conversations were reported on this date.

Comments

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This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Eric Tsang 150-0042-2372, who represents the Office of Structural Materials for your project.

Inspected By:	Pillai,Santosh	Quality Assurance Inspector
Reviewed By:	Miller,Mark	QA Reviewer